



IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

**PATENT APPLICATION**

Applicant: **Vlad MITLIN**

Case: **3Com-86(3611.DSL.US.P)**

Serial No.: **09/865,763**

Filed: **May 25, 2001**

Group Art Unit: **2184**

Confirmation No.: **5768**

Examiner:

Title: **METHOD AND APPARATUS FOR EVALUATING ERROR CONTROL  
PARAMETERS OF SELF-SIMILAR CONSTELLATIONS**

COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

S I R:

**INFORMATION DISCLOSURE STATEMENT**

The applicant respectfully requests that the following references be considered in the examination of the above-identified application. A copy of each reference is enclosed.

**United States Patents**

<u>Patent Number</u>	<u>Inventor</u>	<u>Date Issued</u>	<u>Class</u>
AA. 6,075,821	Kao et al	June 13, 2000	375/260
AB. 6,072,779	Tzannes et al	June 6, 2000	370/252
AC. 6,064,692	Chow	May 16, 2000	375/219
AD. 5,852,633	Levin et al	Dec. 22, 1998	375/260
AE. 5,479,447	Chow et al	Dec. 26, 1995	375/260

## Publications

- AF. J.J. Binney, et al, The Theory of Critical Phenomena: An Introduction to the Renormalization Group, (©1992 Oxford Science Publications, Oxford) pp. 27-30 and Chapter 5 pp. 113-157.
- AG. P.S. Chow, "Bandwidth Optimized Digital Transmission Techniques for Spectrally Shaped Channels with Impulse Noise", Ph.D. thesis, Stanford University, May 1993, pages ii-187.
- AH. A. Cherkaev, "Variational Methods for Structural Optimization", Applied Mathematical Sciences Vol. 140.
- AI. M.J. Feigenbaum, "The Transition to Aperiodic Behavior in Turbulent Systems", Communications in Mathematical Physics, 1980, pages 65-86.
- AJ. I.S. Gradshteyn, Table of Integrals, Series, and Products - 6<sup>th</sup> Edition, (©2000, Academic Press).
- AK. IEEE Std 802.11a-1999: Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: High-speed Physical Layer in the 5 GHz Band, IEEE, New York, 1999, pages 3-82.
- AL. ITU Recommendation G.992.1: Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva 1999, pages i-242.
- AM. ITU Recommendation G.992.2: Splitterless Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva 1999, pages i-167.
- AN. T.J. Lunn et al, "Number of Neighbours for Staged Decoding of Block Coded Modulation", IEE Electronic Letters, 1993, Vol. 29, No. 21, pp. 1830 - 1831.
- AO. B.B. Mandelbrot, The Fractal Geometry of Nature, (©1983, W.N. Freeman and Co., New York) pp. 1-57.

- AP. J. Proakis, Digital Communications, (©1995 McGraw-Hill, New York) pages 260-263, 278-282, 441, and 464-67.
- AQ. D. Bertsekas et al, Data Networks, (©1992, Prentice Hall), pages 64-86 and 149-240.
- AR. J.A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, May 1990, pages 5-14.
- AS. W.Y. Chen, DSL: Simulation Techniques and Standards Development for Digital Subscriber Line Systems, (©1998, MacMillan Technical Publishing), pages 465, 11, and 119-121.
- AT. P.S. Chow et al, "A Practical Discrete Multitone Transceiver Loading Algorithm for Data Transmission Over Spectrally Shaped Channels", IEEE Transactions on Communications, Vol. 43, No. 2/3/4, February/March/April 1995, pages 773-775.
- AU. N.G. de Bruijn, Asymptotic Methods in Analysis, (©1981, Dover Publications, Inc.), pages 22-23.
- AV. F.J. MacWilliams et al, Chapter 10, Section 10, "Reed-Solomon and Justesen Codes - Decoding RS codes", The Theory of Error-Correcting Codes, (©1977, Elsevier Science), page 306.
- AW. V.S. Mitlin, Nonlinear Dynamics of Reservoir Mixtures, (©1993, CRC Press), pages 173-177.
- AX. Numerical Recipes in C: The Art of Scientific Computing, (©1992 Cambridge University Press) pages 212-221.

#### REMARKS

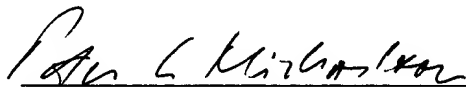
Under rule 37 C.F.R. 1.98(a) (effective March 16, 1992), since all of the above-cited references are in the

English language, the applicant submits that no specific comments are necessary for any of these.

For the Examiner's convenience, the applicants have attached a completed modified Form PTO/SB/08A&B form hereto.

Respectfully submitted,

September 5, 2001



Peter L. Michaelson, Attorney

Reg. No. 30,090

Customer No. 007265

(732) 530-6671

MICHAELSON & WALLACE  
Counselors at Law  
Parkway 109 Office Center  
328 Newman Springs Road  
P.O. Box 8489  
Red Bank, New Jersey 07701

**CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)**

I hereby certify that this correspondence is being deposited on **September 6, 2001**, with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.



Signature

30,090

Reg. No.



Please type a plus sign (+) inside this box → +

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

### Complete if Known

Application Number	09/865,763
Filing Date	May 25, 2001
First Named Inventor	Vlad MITLIN
Group Art Unit	2184
Examiner Name	
Attorney Docket Number	3Com-86 (3611.DSL.US.P)

### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
✓	AF	J.J. Binney, et al, The Theory of Critical Phenomena: An Introduction to the Renormalization Group, (©1992 Oxford Science Publications, Oxford) pp. 27-30 and Chapter 5 pp. 113-157.	
✓	AG	P.S. Chow, "Bandwidth Optimized Digital Transmission Techniques for Spectrally Shaped Channels with Impulse Noise", Ph.D. thesis, Stanford University, May 1993, pages ii-187.	
✓	AH	A. Cherkaev, "Variational Methods for Structural Optimization", Applied Mathematical Sciences Vol. 140.	
✓	AI	M.J. Feigenbaum, "The Transition to Aperiodic Behavior in Turbulent Systems", Communications in Mathematical Physics, 1980, pages 65-86.	
✓	AJ	I.S. Gradshteyn, Table of Integrals, Series, and Products - 6th Edition, (©2000, Academic Press).	
✓	AK	IEEE Std 802.11a-1999: Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: High-speed Physical Layer in the 5 GHz Band, IEEE, New York, 1999, pages 3-82.	
✓	AL	ITU Recommendation G.992.1: Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva 1999, pages i-242.	
✓	AM	ITU Recommendation G.992.2: Splitterless Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva 1999, pages i-167.	
✓	AN	T.J. Lunn et al, "Number of Neighbours for Staged Decoding of Block Coded Modulation", IEE Electronic Letters, 1993, Vol. 29, No. 21, pp. 1830 - 1831.	
✓	AO	B.B. Mandelbrot, The Fractal Geometry of Nature, (©1983, W.N. Freeman and Co., New York) pp. 1-57.	
✓	AP	J. Proakis, Digital Communications, (©1995 McGraw-Hill, New York) pages 260-263, 278-282, 441, and 464-67.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 3

### Complete if Known

Application Number	09/865,763
Filing Date	May 25, 2001
First Named Inventor	Vlad MITLIN
Group Art Unit	2184
Examiner Name	
Attorney Docket Number	3Com-86 (3611.DSL.US.P)

### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/	AQ	D. Bertsekas et al, Data Networks, (©1992, Prentice Hall), pages 64-86 and 149-240.	
/	AR	J.A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, May 1990, pages 5-14.	
/	AS	W.Y. Chen, DSL: Simulation Techniques and Standards Development for Digital Subscriber Line Systems, (©1998, MacMillan Technical Publishing), pages 465, 11, and 119-121.	
/	AT	P.S. Chow et al, "A Practical Discrete Multitone Transceiver Loading Algorithm for Data Transmission Over Spectrally Shaped Channels", IEEE Transactions on Communications, Vol. 43, No. 2/3/4, February/March/April 1995, pages 773-775.	
/	AU	N.G. de Bruijn, Asymptotic Methods in Analysis, (©1981, Dover Publications, Inc.), pages 22-23.	
/	AV	F.J. MacWilliams et al, Chapter 10, Section 10, "Reed-Solomon and Justesen Codes - Decoding RS codes", The Theory of Error-Correcting Codes, (©1977, Elsevier Science), page 306.	
/	AW	V.S. Mitlin, Nonlinear Dynamics of Reservoir Mixtures, (©1993, CRC Press), pages 173-177.	
/	AX	Numerical Recipes in C: The Art of Scientific Computing, (©1992 Cambridge University Press) pages 212-221.	

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

(3c72.1-1449/64/ks)